Department	**Geology**	Term, Date	**Spring 2016**
Program	**Geology- Chemistry**	Time	**Two hours**
Course	**Hydrogeochemistry- G 417**	Points	**60**
Lecturer	**Dr. Osman M. Badran**		

Answer the following questions:

1- Write on: Hardness of water and its classification.

2- Discus: The test methods in water analysis.

3- Complete the missing parts:

a- The chemical composition of natural water are .....,.....,.....,.... and....

b- Groundwater includes.....,.....,.....and.....

c- The analysis methods of water chemical content are...,....,.... and.....

d- The man-made organics compound in water are .....,.....,..... and.....

e- DOC concentrations depend on.....,.....and.....

f- The optical properties measured are.....,.....,.....and.....

4- Illustrate: The quality of surface water.

5- Write on: physical properties of water.

6- Discus: Groundwater sampling.

7- Define the following items:

Artesian water- BOD- DOC- Pesticides- TDS- Geothermal water

8- Write briefly on: groundwater pollution.

9- Differentiate between: water alkalinity and water acidity.

10- Discus: Organic compounds in water (natural and man-made).

Good luck

Geology Department
Faculty of Science
Damanhour University
Examiner: Dr. Maged El Osta

2nd Geology - Geophysics
Geomorphology (G 210)
Second Term (2015 – 2016)
Time: (1 hour)

Answer the following Questions:

QI: True or False Statements (20 points):

1. A watershed represents all of the stream tributaries that flow to some location along the stream channel.
2. A landscape is the formation of rock and dirt found on Earth's surface which can be larger than a continent or smaller than a pond.
3. The human activity has contributed greatly to the Physical weathering.
4. Runoff takes place when the rate of falling rain is faster than infiltration.
5. Streams and valleys are positive landforms of varying size and shape.
6. A wind cause's small particle to be lifted and therefore moved to another region is called deflation.
7. Radial drainage systems are the most common form of drainage system.
8. Corrosion is the dissolving of rock by carbonic acid in sea water.
9. Complexity of geomorphic evolution is more common than simplicity.
10. Geologic structure is a dominant control factor in the evolution of landforms.

QII: Write short notes on the following: (Choose four only) (40 points).

1. Dendritic drainage system.
2. Uses of geomorphology.
3. Regolith.
4. The mature stage of river growth.
5. Fluvial Processes.
6. Physical weathering and its agents.
7. Erosion.
8. The two types of glaciers.

ϕ GOOD LUCK ϕ

Department: Geology
Year: Second
Section: Geology
Course Code: G201
Course Title: Mineralogy and optical mineralogy
Term: First, 2014/2015
Time Allowed: 2 hours
Total points: 100
Professor(s) Name(s): Mohamed M. El-Sayed

Answer the following questions

Question # 1 **(20 marks)**

Choose the correct answer

1. The indicatrix of the positive uniaxial mineral is
   a- prolate b- oblate c- circular
2. The radius of the uniaxial indicatrix along the optic axis is always
   a- n_ε b- n_ω c- both
3. The acute bisectrix (Bxa) interference figure results when the Bxa is
   a- perpendicular to the microscope stage b- parallel to the microscope stage
   c- oblique to the microscope stage
4. The biaxial indicatrix exhibited
   a- a single circular section b- two circular section c- three circular section
5. Uniaxial minerals have
   a- three refractive indices b- two refractive indices c- one refractive index
6. Ray velocity surface in isotropic minerals are
   a- circular b- prolate c- oblate
7. light travelling along the c-axis (optic axis)
   a- vibrates in the (001) plane b- vibrates in the (011) plane c- vibrates in the (010) plane
8. The optic normal interference figure shows
   a- highest birefringence b- lowest birefringence c- intermediate birefringence
9. Twinkling is change in
   a- Relief c- colour c- both
10. Pleochroism is change in
    a- Relief c- colour c- both

Question # 2 **(20 marks)**

Compare between ONLY TWO of the following with drawing

1. Acute and obtuse bisectrix biaxial interference figures
2. Parallel, symmetrical and oblique Extinction
3. Oblique and highly oblique off-centered uniaxial interference figures

Question # 3 **(20 marks)**

Write on ONLY FOUR of the following topics with drawing

1. Determination of Extinction angle
2. Determination of the optic sign in acute bisectrix biaxial interference figures
3. Benefits of the interference figures
4. Pleochroism
5. Becke Test

With best wishes
Prof.Dr. M. M. El-Sayed

Department: Geology
Section: Chemistry- Geology
Cource Code: G.309
Course Title: Petrology of Sedimentary Rocks
Date:19 /1/2015
TimeAllowed: One hours
Dr.Esam zahran

Answer the following questions: (60 marks)

Q1:Discus briefly on the following with drawing if possible.(40marks)

- Type of black sand.

- Type formation of dolomites.

- Difference between groups of clay minerals.

- Classification of limestone based on texture.

- Basic constituents of limestones.

Q2: What is the main evaporite minerals and sequence precipitation of evaporites. (10marks)

Q3: What is the origin of Phosphorites with mention the mineralogy and main types of Phosphorites. (10marks)

Good luck

Department: Geology
Section: Geology-Chemistry
Cource Code: G.301
Course Title: Sedimentology
Date:19 /1/2015
TimeAllowed: Two hours
Dr.Esam zahran

Answer the following questions: (60 marks)

Q1:Discus briefly on the following with drawing if possible.(40marks)

1. **-Type of sand and sandstone.**
2. **- main groups of clay minerals.**
3. **- classification of limestones based on the composition.**
4. **- The necessary condition for dolomite with mention the type of Ancient Dolostone.**
5. **- The difference between dolomitization and dedolomatization.**
6. **-Type of Sabkhas with mention the source of brine solution.**
7. **- Classification of sedimentary rocks according to origin.**
8. **- Limestone-dolomite classification with mention the technique is useful in difference between them.**

Q2: What is the sequence precipitation of evaporites with mention the economic importante of evaporites. (10marks)

Q3: What is the mineralogy and main types of phosphate rocks. (10marks)

Good luck

Department: Geology
Section: Geology-Geophysics, Geology- Chemistry
Cource Code: G.203
Course Title: Paleontology
Date: 20/1/2015
TimeAllowed: Two hours
Dr.Esam zahran

Answer the following questions: (60 marks)

Part one Macropaleontology(40 marks)

Q1:Discus briefly on the following (Five points) with drawing if possible.(30marks)
- **Variation in form and type of suture line of Cephalopod.**
- **Mode of life Brachiopods.**
- **Ecological factors affecting the distribution of Brachiopods.**
- **Internal morphology of hard parts of Brachiopods.**
- **Type of Dentition in Bivalves.**
- **Classification of oceanic environments with mention the Biotic factor affecting on the distribution of organisms.**

Q2:Explain in details the difference between Bivalves and Brachiopods in shell composition and microstructure. (10marks)

Part two Micropaleontology (20 marks)

Q1:Discus briefly on the following with drawing if possible.(10marks)
- **Characteristic of microfossils as a good tools in correlation.**
- **Life habits- Movements- Growth and Test mineralization of foraminifera.**

Q2: Write short notes on the Calcareous walls (hyaline type). (10marks)

Good luck

Department: Geology
Level: Third
Program: Major Geology
Course Code: GP 308
Course Title: Special course(Exploration Geophysics)
Geophysical Exploration
Term: Spring 2016
Time Allowed: 2 hours
Total points: 60
Professor(s) Name(s): Tharwat Ahmed Abdel Fattah

Damanhour University
Faculty of Science
Geology Department

Student Name:

Specialization:

Question I:

Highlight each of the following:

a- Types of magnetic fields

b- Magnetic elements

c- Classification of rocks and minerals based on their magnetic properties

d- Direct and indirect interpretation

Question II:

Explain briefly the plus minus method showing the difference between this method and intercept metod.

QIII:

Show by drawings only each of the following:

Department: Geology
Level: Third
Program: Major Geology
Course Code: GP 308
Course Title: Special course(Exploration Geophysics)
Geophysical Exploration
Term: Spring 2016
Time Allowed: 2 hours
Total points: 60
Professor(s) Name(s): Tharwat Ahmed Abdel Fattah

Damanhour University
Faculty of Science
Geology Department

a- Horst and Graben structure on a total intensity magnetic map

b- Cavity on gravity profile

c- Metallic ore mineral on gravity profile

d- Salt dome on gravity map

e- Airy' s theory of isostacy

Question IV:

Costruct a table showing the different geophysical methods and their applications.

Department: Geology
Year: Third
Section: Geology-Geophysics
Course Code: Geoph (302)
Course Title: Seismology principles
Term: Spring 2015/2016
Date: 04/06/2016
Time Allowed: 2 hours
Total points: 60
Professor Name: Elhamy A. Tarabees

1- Write true or false and write your comments (3 points each right answer).

1- Earthquake magnitude equal to the earthquake intensity.

2- You can estimate the distance of the earthquake from a station, and its origin time from a single station single component record.

3- The difference between the arrival times of the seismic waves indicates; how far away the earthquake is.

4- Body wave has more destructives effect than surface wave.

5- The origin time of an earthquake is the time in which the station recorded the earthquake.

2- Write in the following (9 points each right answer)

1- Behaviors of Body waves.

2- Earthquake Intensity and Earthquake Magnitude.

3- Earthquakes classification according to its nature.

4- The importance of seismology studying.

5- The Focus and Epicenter of an Earthquake

My wishes with a good luck

Section: Geology- Chemistry
Cource Code: G.314
Course Title: Biostratigraphy
Date:8 /6/2015
Time Allowed: one hours
Dr.Esam zahran

Answer the following questions: (60 marks)

Q1:Discus briefly on the (Three point) following with drawing if possible.(45marks)

- Main type of basis constituent unit of Biostratigraphy.

-Main characteristic of Ordovician system .

- Type of interval zones of biostratigraphy.

- Main type of biocorrelatation

- Dating of sedimentary rocks and Calibrating the geologic time scale.

Q2: The reason of mass extinction of organisms during End of Permian and Late Cretaceous with mention the example. (15marks)

Good luck

جامعة دمنهور

كلية العلوم

قسم الجيولوجيا

الجيولوجيا البيئيه ج308

الفرقه الثالثه

جيولوجيا-كيمياء

ربيع 2016

الزمن ساعتان

تكلم عن النقاط الاتيه باختصار: (سبعة فقط)

1- اثار الزلازل وكيفية التعايش معها.

2- أضرار تلوث الهواء على الانسان.

3- طرق الحد من تلوث المياه.

4- أثار السيول و الفيضانات.

5- تصنيف الكثبان الرمليه.

6- أجزاء البركان واثاره.

7- مصادر تلوث المياه.

8- التلوث البحري.

تمنياتنا بالنجاح والتوفيق.....